
# Consolidation of Urine Albumin Testing Effective March 1, 2017

## February 20, 2017

***This information applies to:*** *Physicians, Diabetes Program, Dialysis Unit, PEI Hospital Laboratories, Clinical Educators/Instructors*

Urine albumin testing will be standardized across the island and will be performed only at QEH. Testing consolidation will not significantly impact urine albumin turnaround time at any of HPEI facilities. Please find below a list of expected changes and a summary of urine albumin testing recommendations as per the KDIGO guidelines1.

Expected changes

1. Test names will comply with KDIGO guidelines1:
   a. Albumin/Urine Creatinine will be changed to Albumin-to-Creatinine Ratio (ACR).
   b. 24 Hr Urine Albumin will be changed to Albumin Excretion Rate (AER).

Test name changes, with illustrative screenshots, will be posted on the next issue of the CIS Bulletin

2. Clinical Cutoffs
   a. Will be also changed to comply with the guidelines1
   i. No gender specific cutoffs
   ii. Albuminuria categories in chronic kidney disease:

| Albumin-to-Creatinine Ratio (ACR; mg/mmol) | |
|---|---|
| Normal-mildly increased | <3.0 |
| Moderately increased | 3.0 - 30 |
| Severely increased* | >30 |
| **Albumin Excretion Rate (AER; mg/24 hours)** | |
| Normal-mildly increased | < 30 |
| Moderately increased | 30 - 300 |
| Severely increased* | > 300 |

* including nephrotic syndrome

3. Urine albumin reportable range

a. Will change from 2-4400 to 5-2000 mg/L

Summary urine albumin testing recommendations (KDIGO guidelines1)

1. Use the following measurements for initial testing of proteinuria (in a descending order of preference):
   a. Urine ACR;
   b. Urine PCR (Protein-to-Creatinine Ratio);
   c. Reagent strip urinalysis for total protein

In all cases an early morning urine sample is preferred

2. Report ACR and PCR in untimed urine samples in addition to albumin or protein concentrations rather than the concentrations alone.
3. Confirm ACR (>3 mg/mmol) on a random untimed urine with a subsequent first morning urine sample (specimen of choice for ACR).
4. Measure AER or total protein excretion rate in a timed urine sample, if a more accurate estimate of albuminuria or total proteinuria is required.
5. The term “microalbuminuria” should no longer be used by laboratories. Microalbuminuria is now referred to as ‘‘moderately increased albuminuria’ which is characterized by ACR of 3–30 mg/mmol or AER of 30-300 mg/24 hour.

For a full list of recommendations please visit the Chemistry website at: http://www.healthpei.ca/index.php3?number=1051315

REFERENCES:

1. Kidney Disease: Improving Global Outcomes (KDIGO) CKD Work Group. KDIGO 2012 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. Kidney inter., Suppl. 2013; 3: 1–150.

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